

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A method of processing a digital image using face detection within said image to achieve one or more desired image processing parameters, comprising ~~the steps of~~:
 - (a) on an apparatus including a processor configured for image processing, acquiring a digital image and automatically identifying a group of pixels that correspond to an image of a face within the digital image;
 - (b) determining default values of one or more parameters of at least some portion of said digital image; ~~and~~
 - (c) adjusting values of the one or more parameters within the digitally-detected image based upon an analysis of said digital image including said image of said face and said default values; and
 - (d) receiving and executing a manual command to remove a false indication of another face within the image based on a manual indication that the apparatus has automatically falsely identified another group of pixels as being a face.
2. (original) The method of claim 1, the digital image comprising a digitally-acquired image.
3. (original) The method of claim 1, further comprising a decision for processing said digital image based on said face detection, the decision being performed manually.
4. (original) The method of claim 1, further comprising a decision for adjusting values of the one or more parameters, the decision being automated.
5. (original) The method of claim 1, further comprising a decision for adjusting values of the one or more parameters, the decision being performed manually.

6. (currently amended) ~~The method of claim 1~~ A method of processing a digital image using face detection within said image to achieve one or more desired image processing parameters, comprising:

(a) identifying a group of pixels that correspond to an image of a face within the digital image;

(b) determining default values of one or more parameters of at least some portion of said digital image; and

(c) adjusting values of the one or more parameters within the digitally-detected image based upon an analysis of said digital image including said image of said face and said default values,

(d) wherein the one or more parameters include an including orientation of said face ~~, color, tone, size, luminance, relative exposure, relative spatial location, tone reproduction, sharpness or focus or combinations thereof.~~

7. (original) The method of claim 6, the one or more parameters comprise of a mask that defines one or more regions where the one or more parameters are valid.

8. (original) The method of claim 7, the mask further comprising a continuous presentation of varying strength within different sub-regions of said one or more regions.

9. (original) The method of claim 7, said one or more parameters comprising identical parameters that differ in value based on said mask.

10. (original) The method of claim 6 at least two parameters being concatenated into a single parameter.

11. (original) The method of claim 6, further comprising a selection of one or more parameters, the selection being manually performed.

12. (original) The method of claim 6, further comprising transforming said digital image based on said values of said one or more parameters.

13. (original) The method of claim 6, further comprising creating an operation list for said digital image based on said values of said one or more parameters.

14. (original) The method of claim 13, wherein said operation list is embedded within said digital image.

15. (original) The method of claim 13, wherein said operation list is external to said digital image.

16. (original) A method of processing a digital image using face detection as recited in claim 6, said adjusting the values of said orientation comprising determining a rotation value of the digital image.

17-34 (cancelled).

35. (original) The method of claim 1, the method being performed within a digital acquisition device.

36. (cancelled).

37. (original) The method of claim 2, the face pixels identifying step being automatically performed by an image processing apparatus, the method further comprising manually adding an indication of at least one other face within the image.

38. (original) The method of claim 1, the face pixels identifying step being automatically performed by an image processing apparatus, the method further comprising manually verifying correct detection of at least one face within the image.

39. (original) The method of claim 1, the digitally-detected image comprising a digitally-captured image.

40-79 (cancelled).

80. (currently amended) One or more processor readable storage devices having processor readable code embodied thereon, said processor readable code for programming one or more processors to perform a method of processing a digital image using face detection in said image to achieve a desired image processing parameter, the method comprising:

- (a) identifying a group of pixels that correspond to an image of a face within the digital image;
- (b) determining default values of one or more parameters of at least some portion of said digital image; ~~and~~
- (c) adjusting values of the one or more parameters within the digitally-detected image based upon an analysis of said digital image including said image of said face and said default values; and
- (d) receiving and executing a manual command to remove a false indication of another face within the image based on a manual indication that the apparatus has automatically falsely identified another group of pixels as being a face.

81. (original) The one or more storage devices of claim 80, the digital image comprising a digitally-acquired image.

82. (original) The one or more storage devices of claim 80, the method further comprising manually deciding processing of said digital image based on said face detection.

83. (original) The one or more storage devices of claim 80, the method further comprising an automated decision for adjusting values of the one or more parameters.

84. (original) The one or more storage devices of claim 80, the method further comprising manually deciding adjusting values of the one or more parameters.

85. (currently amended) ~~The one or more storage devices of claim 80~~ One or more processor readable storage devices having processor readable code embodied thereon, said processor readable code for programming one or more processors to perform a method of processing a digital image using face detection in said image to achieve a desired image processing parameter, the method comprising:

(a) identifying a group of pixels that correspond to an image of a face within the digital image;

(b) determining default values of one or more parameters of at least some portion of said digital image;

(c) adjusting values of the one or more parameters within the digitally-detected image based upon an analysis of said digital image including said image of said face and said default values,

(d) wherein the one or more parameters include an including orientation of said face, color, tone, size, luminance, relative exposure, relative spatial location, tone reproduction, sharpness or focus or combinations thereof.

86. (original) The one or more storage devices of claim 85, the one or more parameters comprising of a mask that defines regions where the parameters are valid.

87. (original) The one or more storage devices of claim 86, where the mask further comprises a continuous presentation of varying strength within different sub-regions of said region.

88. (original) The one or more storage devices of claim 86, said one or more parameters comprising same parameters differing in value based on said mask.

89. (original) The one or more storage devices of claim 85, at least two parameters being concatenated into a single parameter.

90. (original) The one or more storage devices of claim 85, the method further comprising manually selecting one or more parameters.

91. (original) The one or more storage devices of claim 85, the method further comprising transforming said digital image based on said values of said one or more parameters.

92. (original) The one or more storage devices of claim 85, the method further comprising creating an operation list for said digital image based on said values of said one or more parameters.

93. (original) The one or more storage devices of claim 92, wherein said operation list is embedded in said digital image.

94. (original) The one or more storage devices of claim 92, wherein said operation list is external to said digital image.

95. (original) The one or more storage devices of claim 85, said adjusting the values of said orientation comprising determining a rotation value of the digital image.

96-113 (cancelled).

114. (original) The one or more storage devices of claim 80, the method being performed within a digital acquisition device.

115. (cancelled).

116. (original) The one or more storage devices of claim 80, the face pixels identifying step being automatically performed by an image processing apparatus, the method further comprising manually adding an indication of at least one other face within the image.

117. (original) The one or more storage devices of claim 80, the face pixels identifying step being automatically performed by an image processing apparatus, the method further comprising manually verifying correct detection of at least one face within the image.

118. (original) The one or more storage devices of claim 80, the digitally-detected image comprising a digitally-captured image.

119. (currently amended) ~~The one or more storage devices of claim 118~~ One or more processor readable storage devices having processor readable code embodied thereon, said processor readable code for programming one or more processors to perform a method of processing a digital image using face detection in said image to achieve a desired image processing parameter, the method comprising:

(a) identifying a group of pixels that correspond to an image of a face within the digital image;

(b) determining default values of one or more parameters of at least some portion of said digital image;

(c) adjusting values of the one or more parameters within the digitally-detected image based upon an analysis of said digital image including said image of said face and said default values, and further comprising the step of

(d) automatically providing a fill flash to digitally add exposure to brighten the group of pixels that correspond to said image of said face while not digitally adding exposure to nor otherwise brightening one or more other pixels within the digital image.

120. (currently amended) ~~The one or more storage devices of claim 118~~ One or more processor readable storage devices having processor readable code embodied thereon, said processor readable code for programming one or more processors to perform a method of processing a digital image using face detection in said image to achieve a desired image processing parameter, the method comprising:

(a) identifying a group of pixels that correspond to an image of a face within the digital image;

(b) determining default values of one or more parameters of at least some portion of said digital image;

(c) adjusting values of the one or more parameters within the digitally-detected image based upon an analysis of said digital image including said image of said face and said default values, and further comprising the step of

(d) automatically providing an option for providing a suggested fill-flash to digitally add exposure to brighten the group of pixels that correspond to said image of said face while not digitally adding exposure to nor otherwise brightening one or more other pixels within the digital image.

121-158 (cancelled).

159. (new) A method of processing a digital image using face detection in said image to achieve a desired image processing parameter, comprising:

(a) identifying a group of pixels that correspond to an image of a face within the digital image;

(b) determining default values of one or more parameters of at least some portion of said digital image;

(c) adjusting values of the one or more parameters within the digitally-detected image based upon an analysis of said digital image including said image of said face and said default values, and

(d) automatically providing a fill flash to digitally add exposure to brighten the group of pixels that correspond to said image of said face while not digitally adding exposure to nor otherwise brightening one or more other pixels within the digital image.

160. (new) A method of processing a digital image using face detection in said image to achieve a desired image processing parameter, comprising:

(a) identifying a group of pixels that correspond to an image of a face within the digital image;

(b) determining default values of one or more parameters of at least some portion of said digital image;

(c) adjusting values of the one or more parameters within the digitally-detected image based upon an analysis of said digital image including said image of said face and said default values, and

(d) automatically providing an option for providing a suggested fill-flash to digitally add exposure to brighten the group of pixels that correspond to said image of said face while not digitally adding exposure to nor otherwise brightening one or more other pixels within the digital image.

161. (new) The method of claim 6, further comprising receiving and executing a manual command to remove a false indication of another face within the image based on a manual indication that the apparatus has automatically falsely identified another group of pixels as being a face.

162. (new) The method of claim 159, further comprising receiving and executing a manual command to remove a false indication of another face within the image based on a manual indication that the apparatus has automatically falsely identified another group of pixels as being a face.

163. (new) The method of claim 160, further comprising receiving and executing a manual command to remove a false indication of another face within the image based on

a manual indication that the apparatus has automatically falsely identified another group of pixels as being a face.

164. (new) The method of claim 6, further comprising automatically providing a fill flash to digitally add exposure to brighten the group of pixels that correspond to said image of said face while not digitally adding exposure to nor otherwise brightening one or more other pixels within the digital image.

165. (new) The method of claim 6, further comprising automatically providing an option for providing a suggested fill-flash to digitally add exposure to brighten the group of pixels that correspond to said image of said face while not digitally adding exposure to nor otherwise brightening one or more other pixels within the digital image.

166. (new) The one or more storage devices of claim 85, wherein the method further comprises receiving and executing a manual command to remove a false indication of another face within the image based on a manual indication that the apparatus has automatically falsely identified another group of pixels as being a face.

167. (new) The one or more storage devices of claim 119, wherein the method further comprises receiving and executing a manual command to remove a false indication of another face within the image based on a manual indication that the apparatus has automatically falsely identified another group of pixels as being a face.

168. (new) The one or more storage devices of claim 120, wherein the method further comprises receiving and executing a manual command to remove a false indication of another face within the image based on a manual indication that the apparatus has automatically falsely identified another group of pixels as being a face.

169. (new) The one or more storage devices of claim 85, wherein the method further comprises automatically providing a fill flash to digitally add exposure to brighten the

group of pixels that correspond to said image of said face while not digitally adding exposure to nor otherwise brightening one or more other pixels within the digital image.

170. (new) The one or more storage devices of claim 85, wherein the method further comprises automatically providing an option for providing a suggested fill-flash to digitally add exposure to brighten the group of pixels that correspond to said image of said face while not digitally adding exposure to nor otherwise brightening one or more other pixels within the digital image.

171. (new) A method of processing a digital image using face detection within said image to achieve one or more desired image processing parameters, comprising:

- (a) on an apparatus including a processor configured for image processing, acquiring a main digital image and automatically identifying a group of pixels that correspond to an image of a face within the main digital image;
- (b) generating in-camera, capturing or otherwise obtaining in-camera a collection of low resolution images including said face;
- (c) tracking said face within said collection of low resolution images;
- (d) determining default values of one or more parameters of said face within said main digital image based on analysis of said main digital image or on the collection of low resolution images, or both;
- (e) adjusting values of the one or more parameters within the digital image based upon an analysis of said collection of low resolution images and said digital image including said image of said face and said default values; and
- (f) rendering, transmitting, transferring, storing, uploading, caching, or displaying said modified image or a further processed version, or combinations thereof.

172. (new) The method of claim 171, wherein the main digital image comprising a digitally-acquired image.

173. (new) The method of claim 171, further comprising processing said main digital image based on said face detection, including receiving a manual or automatic decision.

174. (new) The method of claim 171, wherein the one or more parameters include an orientation of said face.

175. (new) The method of claim 171, wherein the one or more parameters comprise a mask that defines one or more regions where the one or more parameters are valid.

176. (new) The method of claim 175, wherein the mask further comprises a continuous presentation of varying strength within different sub-regions of said one or more regions.

177. (new) The method of claim 175, wherein the one or more parameters comprise identical parameters that differ in value based on the mask.

178. (new) The method of claim 171, further comprising concatenating at least two parameters into a single parameter.

179. (new) The method of claim 171, further comprising selecting one or more parameters manually.

180. (new) The method of claim 171, further comprising transforming said main digital image based on said values of said one or more parameters.

181. (new) The method of claim 171, further comprising creating an operation list for said digital image based on said values of said one or more parameters.

182. (new) The method of claim 181, further comprising embedding said operation list within said main digital image.

183. (new) The method of claim 181, further comprising maintaining said operation list external to said main digital image.

184. (new) The method of claim 171, wherein the adjusting the values of the one or more parameters comprises adjusting orientation including determining a rotation value of the main digital image.

185. (new) The method of claim 171, the method being performed within a digital acquisition device.

186. (new) The method of claim 171, wherein the face pixels identifying is automatically performed by an image processing apparatus, and the method further comprises manually adding an indication of at least one other face within the image.

187. (new) The method of claim 171, wherein the face pixels identifying is automatically performed by an image processing apparatus, and the method further comprises manually verifying correct detection of at least one face within the image.

188. (new) The method of claim 171, wherein the one or more parameters comprise color, tone, size, luminance, relative exposure, relative spatial location, tone reproduction, sharpness or focus or combinations thereof.

189. (new) The method of claim 171, wherein said collection of low resolution images comprises one or more thumbnail views or a contact sheet or both.

190. (new) The method of claim 190, further comprising displaying in preview said one or more thumbnail views or said contact sheet or said collection of low resolution images including said face, or combinations thereof.

191. (new) One or more processor readable storage devices having processor readable code embodied thereon, said processor readable code for programming one or more processors to perform a method of processing a digital image using face detection within said image to achieve one or more desired image processing parameters, the method comprising:

- (a) on an apparatus including a processor configured for image processing, acquiring a main digital image and automatically identifying a group of pixels that correspond to an image of a face within the main digital image;
- (b) generating in-camera, capturing or otherwise obtaining in-camera a collection of low resolution images including said face;
- (c) tracking said face within said collection of low resolution images;
- (d) determining default values of one or more parameters of said face within said main digital image based on analysis of said main digital image or on the collection of low resolution images, or both;
- (e) adjusting values of the one or more parameters within the digital image based upon an analysis of said collection of low resolution images and said digital image including said image of said face and said default values to generate a modified image; and
- (f) rendering, transmitting, transferring, storing, uploading, caching, or displaying said modified image or a further processed version, or combinations thereof.

192. (new) The one or more storage devices of claim 191, wherein the main digital image comprising a digitally-acquired image.

193. (new) The one or more storage devices of claim 191, wherein the method further comprises processing said main digital image based on said face detection, including receiving a manual or automatic decision.

194. (new) The one or more storage devices of claim 191, wherein the one or more parameters include an orientation of said face.

195. (new) The one or more storage devices of claim 191, wherein the one or more parameters comprise a mask that defines one or more regions where the one or more parameters are valid.

196. (new) The one or more storage devices of claim 195, wherein the mask further comprises a continuous presentation of varying strength within different sub-regions of said one or more regions.

197. (new) The one or more storage devices of claim 195, wherein the one or more parameters comprise identical parameters that differ in value based on the mask.

198. (new) The one or more storage devices of claim 191, wherein the method further comprises concatenating at least two parameters into a single parameter.

199. (new) The one or more storage devices of claim 191, wherein the method further comprises selecting one or more parameters manually.

200. (new) The one or more storage devices of claim 191, wherein the method further comprises transforming said main digital image based on said values of said one or more parameters.

201. (new) The one or more storage devices of claim 191, wherein the method further comprises creating an operation list for said digital image based on said values of said one or more parameters.

202. (new) The one or more storage devices of claim 201, wherein the method further comprises embedding said operation list within said main digital image.

203. (new) The one or more storage devices of claim 201, wherein the method further comprises maintaining said operation list external to said main digital image.

204. (new) The one or more storage devices of claim 191, wherein the adjusting the values of the one or more parameters comprises adjusting orientation including determining a rotation value of the main digital image.

205. (new) The one or more storage devices of claim 191, wherein the face pixels identifying is automatically performed by an image processing apparatus, and the method further comprises manually adding an indication of at least one other face within the image.

206. (new) The one or more storage devices of claim 191, wherein the face pixels identifying is automatically performed by an image processing apparatus, and the method further comprises manually verifying correct detection of at least one face within the image.

207. (new) The one or more storage devices of claim 191, wherein the one or more parameters comprise color, tone, size, luminance, relative exposure, relative spatial location, tone reproduction, sharpness or focus or combinations thereof.

208. (new) The one or more storage devices of claim 191, wherein said collection of low resolution images comprises one or more thumbnail views or a contact sheet or both.

209. (new) The one or more storage devices of claim 208, further comprising displaying in preview said one or more thumbnail views or said contact sheet or said collection of low resolution images including said face, or combinations thereof.

210. (new) A method of processing a digital image using face detection within said image to achieve one or more desired image processing parameters, comprising:

- (a) acquiring a temporally-sequential collection of two or more images of substantially a same scene;
- (b) identifying and tracking at least one group of pixels that corresponds to an image of a same face region across said collection of images;
- (c) determining default values of one or more parameters of at least some common portion of said images; and
- (d) modifying values of the one or more parameters within a main acquired image based upon an analysis of said face region and the default parameter values determined based on the collection of images, and
- (e) rendering, transmitting, transferring, storing, uploading, caching, or displaying said modified image or a further processed version, or combinations thereof.

211. (new) The method of claim 210, wherein said collection of images comprise lower resolution images than said main acquired image.

212. (new) The method of claim 210, wherein said collection of images and said main acquired image each comprise said same face region.

213. (new) The method of claim 210, further comprising acquiring said main acquired image based on user input.

214. (new) The method of claim 213, wherein said main acquired image comprises a higher resolution than said collection of images.

215. (new) The method of claim 210, wherein said modifying comprises modifying values of the one or more parameters within a most recently acquired image of the collection based upon an analysis of said face region and the default parameter values of one or more preceding images of the collection.

216. (new) The method of claim 210, wherein said collection of low resolution images comprises one or more thumbnail views or a contact sheet or both.

217. (new) The method of claim 216, further comprising displaying in preview said one or more thumbnail views or said contact sheet or said collection of low resolution images including said face, or combinations thereof.

218. (new) One or more processor readable storage devices having processor readable code embodied thereon, said processor readable code for programming one or more processors to perform a method of processing a digital image using face detection within said image to achieve one or more desired image processing parameters, the method comprising:

- (a) acquiring a temporally-sequential collection of two or more images of substantially a same scene;
- (b) identifying and tracking at least one group of pixels that corresponds to an image of a same face region across said collection of images;
- (c) determining default values of one or more parameters of at least some common portion of said images; and
- (d) modifying values of the one or more parameters within a main acquired image based upon an analysis of said face region and the default parameter values determined based on the collection of images, and
- (e) rendering, transmitting, transferring, storing, uploading, caching, or displaying said modified image or a further processed version, or combinations thereof.

217. (new) The one or more storage devices of claim 216, wherein said collection of images comprise lower resolution images than said main acquired image.

218. (new) The one or more storage devices of claim 216, wherein said collection of images and said main acquired image each comprise said same face region.

219. (new) The one or more storage devices of claim 216, wherein the method further comprises acquiring said main acquired image based on user input.

220. (new) The one or more storage devices of claim 219, wherein said main acquired image comprises a higher resolution than said collection of images.

221. (new) The one or more storage devices of claim 216, wherein said modifying comprises modifying values of the one or more parameters within a most recently acquired image of the collection based upon an analysis of said face region and the default parameter values of one or more preceding images of the collection.

222. (new) The one or more storage devices of claim 216, wherein said collection of low resolution images comprises one or more thumbnail views or a contact sheet or both.

223. (new) The one or more storage devices of claim 222, further comprising displaying in preview said one or more thumbnail views or said contact sheet or said collection of low resolution images including said face, or combinations thereof.